

THAT WHICH IS CLAIMED IS:

1. A gravity hinge comprising:

an upper cylindrical knuckle having a first terminating surface and an opposing second terminating surface oblique to the axis of said upper knuckle;

5 a lower cylindrical knuckle having a first terminating surface oblique to the axis of said lower knuckle at the same angle as said second surface of said upper knuckle and an opposing second terminating surface;

a spindle received by at least one of said knuckles, said spindle establishing rotating communication between said upper and lower knuckles where said second
10 terminating surface of said upper knuckle is opposed to said first terminating surface of said lower knuckle; and

a bushing surrounding said spindle and separating said upper and lower knuckles, said bushing having a lower coefficient of friction with respect to said respective oblique surfaces of said upper and lower knuckles than said respective surfaces have for each
15 other.

2. A gravity hinge according to claim 1 wherein said upper cylindrical knuckle is tubular and said spindle extends from said first terminating surface of said lower cylindrical knuckle and is received in said upper tubular knuckle.

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3. A gravity hinge according to claim 2 wherein said spindle is integral to said lower cylindrical knuckle.

4. A gravity hinge according to claim 2 wherein said lower cylindrical knuckle
25 has a recess for receiving said spindle.

5. A gravity hinge according to claim 1 wherein said lower cylindrical knuckle is tubular and said spindle extends from said second terminating surface of said upper knuckle and is received in said lower tubular knuckle.

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6. A gravity hinge according to claim 5 wherein said spindle is integral to said upper cylindrical knuckle.

7. A gravity hinge according to claim 5 wherein said upper knuckle is tubular and said spindle traverses the length of said upper knuckle and is received in said lower tubular knuckle.

8. A gravity hinge according to claim 1 wherein said bushing is formed of a polymer.

9. A gravity hinge according to claim 1 wherein said bushing is formed of a core material coated with a material having a lower coefficient of friction with respect to said respective oblique surfaces of said upper and lower knuckles than said respective surfaces have for each other.

10. A gravity hinge according to claim 1 wherein said bushing has at least one cylindrical sleeve that surrounds said spindle.

11. A gravity hinge according to claim 10 in which at least one of said cylindrical knuckles possesses an opening sufficient to receive both said spindle and said sleeve.

12. A gravity hinge according to claim 1 wherein at least one of said knuckles is metallic.

13. A gravity hinge according to claim 1 wherein at least one of said knuckles is ceramic.

14. A gravity hinge according to claim 1 wherein at least one of said knuckles is formed of a polymer.

15. A gravity hinge according to claim 1 further comprising a mounting flange attached to at least one of said knuckles.

16. A gravity gate comprising the gravity hinge according to claim 1.

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17. A gravity hinge comprising:

an upper cylindrical knuckle having a terminating surface that is oblique to the vertical axis of said upper knuckle;

10 a lower cylindrical knuckle having a terminating surface that is oblique to the vertical axis of said lower knuckle and at substantially the same angle as said upper knuckle terminating surface;

a spindle for rotatably engaging said upper knuckle with said lower knuckle such that said oblique terminating surfaces of each knuckle are proximate to each other; and

15 a self-lubricating friction reducer surrounding said spindle and physically separating said knuckles.

20 18. A gravity hinge according to claim 17 wherein said self-lubricating friction reducer has a lower coefficient of friction with respect to said terminating oblique surfaces of said upper and lower knuckles than said respective surfaces have for each other.

25 19. A gravity hinge according to claim 17 wherein said upper cylindrical knuckle is tubular and said spindle extends from said first terminating surface of said lower cylindrical knuckle and is received in said upper tubular knuckle.

20. A gravity hinge according to claim 19 wherein said spindle is integral to said lower cylindrical knuckle.

30 21. A gravity hinge according to claim 19 wherein said lower cylindrical knuckle has a recess for receiving said spindle.

30. A gravity hinge according to claim 17 wherein at least one of said knuckles is ceramic.

31. A gravity hinge according to claim 17 wherein at least one of said knuckles is formed of a polymer.

32. A gravity hinge according to claim 17 further comprising a mounting flange attached to at least one of said knuckles.

33. A gravity gate comprising:
a static structure;

a lower cylindrical knuckle attached to said static structure, said lower knuckle having a first terminating surface oblique to the axis of said lower knuckle and an opposing second terminating surface;

an upper cylindrical knuckle having a first terminating surface and an opposing second terminating surface oblique to the axis of said upper knuckle at the same angle as said first surface of said lower knuckle;

a spindle for rotatably engaging said upper knuckle with said lower knuckle such that said oblique terminating surfaces of each knuckle are proximate to each other;

a bushing surrounding said spindle and separating said upper and lower knuckles, said bushing having a lower coefficient of friction with respect to said respective oblique surfaces of said upper and lower knuckles than said respective surfaces have for each other;

a frame member attached to said upper knuckle.

34. A gravity gate according to claim 33 wherein said static structure is a post.

35. A gravity gate according to claim 34 wherein said static structure is a wall.

36. A fence comprising the gravity gate of claim 34.

37. A gravity gate according to claim 33 wherein said bushing is a polymer.

38. A gravity gate according to claim 37 wherein said bushing has at least one cylindrical sleeve that surrounds said spindle.

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39. A gravity hinge according to claim 38 in which at least one of said cylindrical knuckles possesses an opening sufficient to receive both said spindle and said sleeve.

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